Patent

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claims 1-3 (canceled).

Claim 4 (original): A method of treating or inhibiting hyperproliferative vascular disorders in a mammal in need thereof, which comprises administering to said mammal an effective amount of a compound of formula I having the structure

$$R^{10}$$
 R^{20}
 R^{30}
 R^{40}
 R^{50}
 R^{50}
 R^{50}

wherein

R¹, R², R³, R⁴, and R⁵ are each, independently, hydrogen, acyl of 2-7 carbon atoms, haloacyl of 2-7 carbon atoms, nitroacyl of 2-7 carbon atoms, cyanoacyl of 2-7 carbon atoms, trifluoromethylacyl of 3-8 carbon atoms, or benzoyl in which the phenyl moiety is substituted with R⁸;

R⁶ and R⁷ are each, independently, -OH, -OR⁹, O-tert-butyldimethylsilyl, O-trialkylsilyl of 1-6 carbon atoms per alkyl moiety, O-triphenylsilyl,

Patent

- R⁸, R¹⁰, R¹¹, and R¹² are each, independently, hydrogen, -CN, -NO₂, halogen, CF₃, alkyl of 1-6 carbon atoms, acetyl, benzoyl, or alkoxy of 1-6 carbon atoms;
- R⁹ is acyl of 2-7 carbon atoms, haloacyl of 2-7 carbon atoms, nitroacyl of 2-7 carbon atoms, cyanoacyl of 2-7 carbon atoms, trifluoromethylacyl of 3-8 carbon atoms, or benzoyl in which the phenyl moiety is substituted with R⁸;

Y is O, S, NH, NMe, or CH₂;

W is halogen, -CN, CF₃, alkyl of 1-6 carbon atoms, haloalkyl of 1-6 carbon atoms, nitroalkyl of 1-6 carbon atoms, cyanoalkyl of 1-6 carbon atoms, alkoxyalkyl of 2-12 carbon atoms, alkoxy of 1-6 carbon atoms, or phenyl mono-, di-, or tri-substituted with R⁸;

Z is $-NO_2$, $-NH_2$, $-NHR^{13}$, or -NHCO-Het;

- R¹³ is acyl of 2-7 carbon atoms, haloacyl of 2-7 carbon atoms, nitroacyl of 2-7 carbon atoms, cyanoacyl of 2-7 carbon atoms, trifluoromethylacyl of 3-8 carbon atoms, benzoyl in which the phenyl moiety is substituted with R⁸, or
- R^{13} is an α -amino acid in which the α carboxyl group forms an amide with the nitrogen of Z, wherein if said amino acid is glutamic acid or aspartic acid, the non- α carboxylic acid is an alkyl ester in which the alkyl moiety contains from 1-6 carbon atoms;
- Het is pyridyl substituted with R⁸, thienyl substituted with R⁸, furyl substituted with R⁸, oxazolyl substituted with R⁸, pyrazinyl substituted with R⁸, pyrimidinyl substituted with R⁸, or thiazolyl substituted with R⁸;

 R^{14} is R^8 , -NH₂, -CO₂H, or -NH-acyl of 2-7 carbon atoms;

n = 0-3;

with the proviso that when Z is -NHR 13 and Y is O, at least one of R 1 , R 2 , R 3 , R 4 , and R 5 is hydrogen, or at least one of R 6 and R 7 is OH, or a pharmaceutically acceptable salt thereof.

AmendmentForm.dot - Rev 7/03

Page 4 of 9

AmendmentForm

Patent

Claim 5 (Original): A method of treating or inhibiting restenosis in a mammal in need thereof, which comprises administering to said mammal an effective amount of a compound of formula I having the structure

$$R^{10}$$
 R^{20}
 R^{30}
 R^{40}
 R^{50}
 R^{50}
 R^{50}

wherein

R¹, R², R³, R⁴, and R⁵ are each, independently, hydrogen, acyl of 2-7 carbon atoms, haloacyl of 2-7 carbon atoms, nitroacyl of 2-7 carbon atoms, cyanoacyl of 2-7 carbon atoms, trifluoromethylacyl of 3-8 carbon atoms, or benzoyl in which the phenyl moiety is substituted with R⁸;

R⁶ and R⁷ are each, independently, -OH, -OR⁹, O-tert-butyldimethylsilyl, O-trialkylsilyl of 1-6 carbon atoms per alkyl moiety, O-triphenylsilyl,

R⁸, R¹⁰, R¹¹, and R¹² are each, independently, hydrogen, -CN, -NO₂, halogen, CF₃, alkyl of 1-6 carbon atoms, acetyl, benzoyl, or alkoxy of 1-6 carbon atoms;

R⁹ is acyl of 2-7 carbon atoms, haloacyl of 2-7 carbon atoms, nitroacyl of 2-7 carbon atoms, cyanoacyl of 2-7 carbon atoms, trifluoromethylacyl of 3-8 carbon atoms, or benzoyl in which the phenyl moiety is substituted with R⁸;

Patent

Y is O, S, NH, NMe, or CH₂;

W is halogen, -CN, CF₃, alkyl of 1-6 carbon atoms, haloalkyl of 1-6 carbon atoms, nitroalkyl of 1-6 carbon atoms, cyanoalkyl of 1-6 carbon atoms, alkoxyalkyl of 2-12 carbon atoms, alkoxy of 1-6 carbon atoms, or phenyl mono-, di-, or tri-substituted with R⁸;

Z is $-NO_2$, $-NH_2$, $-NHR^{13}$, or -NHCO-Het;

- R¹³ is acyl of 2-7 carbon atoms, haloacyl of 2-7 carbon atoms, nitroacyl of 2-7 carbon atoms, cyanoacyl of 2-7 carbon atoms, trifluoromethylacyl of 3-8 carbon atoms, benzoyl in which the phenyl moiety is substituted with R⁸, or
- R^{13} is an α -amino acid in which the α carboxyl group forms an amide with the nitrogen of Z, wherein if said amino acid is glutamic acid or aspartic acid, the non- α carboxylic acid is an alkyl ester in which the alkyl moiety contains from 1-6 carbon atoms;
- Het is pyridyl substituted with R⁸, thienyl substituted with R⁸, furyl substituted with R⁸, oxazolyl substituted with R⁸, pyrazinyl substituted with R⁸, pyrimidinyl substituted with R⁸, or thiazolyl substituted with R⁸;

 R^{14} is R^8 , -NH₂, -CO₂H, or -NH-acyl of 2-7 carbon atoms;

n = 0-3;

with the proviso that when Z is -NHR¹³ and Y is O, at least one of R^1 , R^2 , R^3 , R^4 , and R^5 is hydrogen, or at least one of R^6 and R^7 is OH, or a pharmaceutically acceptable salt thereof.

Claim 6 (Original): The method according to claim 5, wherein the restenosis results from a vascular angioplasty procedure, vascular reconstructive surgery, or organ or tissue transplantation.

Claim 7 (Original): A method of inhibiting angiogenesis in a malignant tumor, sarcoma, or neoplastic tissue in a mammal in need thereof, which comprises administering to said mammal an effective amount of a compound of formula I having the structure

$$R^{10}$$
 R^{20}
 R^{30}
 R^{40}
 R^{50}
 R^{50}

wherein

Patent

R¹, R², R³, R⁴, and R⁵ are each, independently, hydrogen, acyl of 2-7 carbon atoms, haloacyl of 2-7 carbon atoms, nitroacyl of 2-7 carbon atoms, cyanoacyl of 2-7 carbon atoms, trifluoromethylacyl of 3-8 carbon atoms, or benzoyl in which the phenyl moiety is substituted with R⁸;

R⁶ and R⁷ are each, independently, -OH, -OR⁹, O-tert-butyldimethylsilyl, O-trialkylsilyl of 1-6 carbon atoms per alkyl moiety, O-triphenylsilyl,

R⁸, R¹⁰, R¹¹, and R¹² are each, independently, hydrogen, -CN, -NO₂, halogen, CF₃, alkyl of 1-6 carbon atoms, acetyl, benzoyl, or alkoxy of 1-6 carbon atoms;

R⁹ is acyl of 2-7 carbon atoms, haloacyl of 2-7 carbon atoms, nitroacyl of 2-7 carbon atoms, cyanoacyl of 2-7 carbon atoms, trifluoromethylacyl of 3-8 carbon atoms, or benzoyl in which the phenyl moiety is substituted with R⁸;

Y is O, S, NH, NMe, or CH₂;

W is halogen, -CN, CF₃, alkyl of 1-6 carbon atoms, haloalkyl of 1-6 carbon atoms, nitroalkyl of 1-6 carbon atoms, cyanoalkyl of 1-6 carbon atoms, alkoxyalkyl of 2-12 carbon atoms, alkoxy of 1-6 carbon atoms, or phenyl mono-, di-, or tri-substituted with R⁸;

Z is $-NO_2$, $-NH_2$, $-NHR^{13}$, or -NHCO-Het;

R¹³ is acyl of 2-7 carbon atoms, haloacyl of 2-7 carbon atoms, nitroacyl of 2-7 carbon atoms, cyanoacyl of 2-7 carbon atoms, trifluoromethylacyl of 3-8 carbon atoms, benzoyl in which the phenyl moiety is substituted with R⁸, or

 R^{13} is an α -amino acid in which the α carboxyl group forms an amide with the nitrogen of Z, wherein if said amino acid is glutamic acid or aspartic acid, the non- α carboxylic acid is an alkyl ester in which the alkyl moiety contains from 1-6 carbon atoms;

Patent

Het is pyridyl substituted with R⁸, thienyl substituted with R⁸, furyl substituted with R⁸, oxazolyl substituted with R⁸, pyrazinyl substituted with R⁸, pyrimidinyl substituted with R⁸, or thiazolyl substituted with R⁸;

 R^{14} is R^8 , -NH₂, -CO₂H, or -NH-acyl of 2-7 carbon atoms; n = 0-3;

with the proviso that when Z is -NHR¹³ and Y is O, at least one of R¹, R², R³, R⁴, and R⁵ is hydrogen, or at least one of R⁶ and R⁷ is OH, or a pharmaceutically acceptable salt thereof.

Claim 9 (canceled).